



AFRTS Satellite Information



NewSkies NSS-5 (C-band)

Location: 183 degrees East
 Band: C
 Transponder Antenna polarization: Left-hand circular
 Receiver Setting Polarization: "H-fixed" for model 9234 consumer-grade decoders or "H" for commercial-grade decoders with dual-band LNBs
 C Band Downlink Frequency: 3.97713 GHz
 Transponder: 44
 L-Band: 1172.75 MHz
 Symbol Rate: 28.0000 MS/s
 FEC Rate: $\frac{3}{4}$
 EIRP: 41.0 dBW
 Network ID: 2
 Coverage Map:
<http://www.newskies.com/newhome/home.asp#>
click on the map and select NSS-5 and then the C-band half of the satellite. The north-west zone beam is AFRTS.

NewSkies NSS-6 (Ku-band)

Location: 95 degrees East
 Band: Ku
 Transponder Antenna polarization: Vertical
 Receiver Setting Polarization: "H-fixed" for model 9234 consumer-grade decoders or "H" for commercial-grade decoders with dual-band LNBs
 Ku Band Downlink Frequency: 11.6760 GHz
 Transponder:
 L-Band: 11.676 GHz*
 Symbol Rate: 28.0000 MS/s
 FEC Rate: $\frac{3}{4}$
 EIRP: 53.7 dBW center pattern
 Network ID: 1
 Coverage Map:
<http://www.newskies.com/newhome/home.asp#>
click on the map and select NSS-6 and then the Ku-band half of the satellite.

INTELSAT 10-02

(South America, Africa, and Atlantic Ocean Region)
 Location: 359 degrees East (1 degree West)
 Band: C
 Transponder Antenna Polarization: RHCP
 Receiver Setting Polarization: "H-fixed"
 C-Band Frequency: 4.1750 GHz
 Transponder: 38
 L-Band frequency: 975 MHz
 Symbol rate: 28.0000 MS/s
 FEC rate: $\frac{3}{4}$
 EIRP: 35 dBW
 Network ID 3
 Coverage Map:
<http://www.intelsat.com/images/en/resources/coverage/maps/maps/10-02-359-global.jpg>

IntelSat Americas-5 (United States)

Location: 97 degrees West
 Band: C/L Band
 C-band frequency: 4.060 GHz
 Transponder: 18
 Transponder Antenna Polarization: HP
 Receiver Setting Polarization: "H-fixed" for model 9234 consumer-grade decoders or "H" for commercial-grade decoders with dual-band LNBs
 L-Band frequency: 1090 MHz
 Symbol rate: 28.0000 MS/s
 FEC rate: $\frac{3}{4}$
 EIRP: 37 dBW
 Network ID 9
 Coverage Map (not-official):
<http://www.geo-orbit.org/westhemipgs/ft5p.html>

HotBird 6 (Europe)

Location: 13 degrees East
 Band: Ku
 Transponder Antenna Polarization: Vertical
 Transponder: 113
 Receiver Setting Polarization: "H-fixed" for model 9234 consumer-grade decoders or "H" for commercial-grade decoders with dual-band LNBs based on transponder settings
 Ku Band Downlink Frequency: 10.775 GHz
 L-Band/LO frequency: 1025 MHz* (9.750 MHz LNB Frequency)
 Symbol rate: 28.0000 MS/s
 FEC rate: $\frac{3}{4}$
 EIRP: 50.0 dBW
 Network ID 6
 Coverage map:
<http://www.eutelsat.org/satellites/coverage/downlink/13ehb4.gif>

HotBird 4 (Europe)

Location: 13 degrees East
 Band: Ku
 Transponder Antenna Polarization: Vertical
 Transponder: 113
 Receiver Setting Polarization: "H-fixed" for model 9234 consumer-grade decoders or "H" for commercial-grade decoders with dual-band LNBs based on transponder settings
 Ku Band Downlink Frequency: 10.775 GHz
 L-Band/LO frequency: 1025 MHz* (9.750 MHz LNB Frequency)
 Symbol rate: 28.0000 MS/s
 FEC rate: $\frac{3}{4}$
 EIRP: 50.0 dBW
 Network ID 6
 Coverage map:
<http://www.eutelsat.org/satellites/coverage/downlink/13ehb4.gif>

Direct To Sailor (DTS) Service

INTELSAT 701 (Pacific Ocean)

Location: 180 degrees East
 Band: C
 Transponder Antenna Polarization: LHCP
 Receiver Setting Polarization: "H-fixed"
 C-Band frequency: 4.1735 GHz
 L-Band frequency: 976.5 MHz
 Symbol Rate: 3.6800 MS/s
 FEC rate: 2/3
 EIRP: 29.0 dBW
 Network ID 5
 Coverage map:
<http://www.intelsat.com/images/en/resources/coveragemaps/maps/701-180-global.jpg> (global)

INTELSAT 906 (Indian Ocean and Persian Gulf)

Location: 64.1 degrees East
 Band: C
 Transponder Antenna Polarization: LHCP
 Receiver Setting Polarization: "H-fixed"
 C-Band frequency: 4080 MHz
 L-Band frequency: 1070 MHz
 Symbol Rate: 3.6800 MS/s
 FEC Rate: 2/3
 EIRP: 29.0 dBW
 Network ID 7
 Coverage map:
<http://www.intelsat.com/images/en/resources/coveragemaps/maps/906-64-global.jpg> (global)

New Skies NSS-7

(Atlantic Ocean and Mediterranean Sea)
 Location: 338.0 degrees East (22 degrees West)
 Band: C
 Transponder Antenna Polarization: LHCP
 Receiver Setting Polarization: "H-fixed"
 C-Band frequency: 4127 MHz
 L-Band frequency: 1023 MHz
 Symbol Rate: 3.6800 MS/s
 FEC Rate: 2/3
 EIRP: 30.5 dBW
 Network ID 6
 Coverage map:
<http://www.newskies.com/PBFleet/fleet7new.asp> (global)

AMC-1 Ku Band (The Pentagon Channel)

Location: 103 degrees West
 Band: Ku
 Transponder Polarity: Vertical
 Receiver Setting Polarization: Vertical
 Ku band frequency: 12.100 GHz* Transponder number: 20
 Symbol Rate: 20,000 MS/s
 FEC Rate: 3/4
 Encryption: none
 Coverage map: <http://www.ses-americom.com/satellites/amc-1.html>

AMC-1 C Band Domestic Hop (Very large domestic dishes only)

Location: 103 degrees West
 Band: C
 Transponder Polarity: Horizontal
 Receiver Setting Polarization: "H-fixed"
 C-Band frequency: 4.065.75 GHz
 L-Band frequency: 1.084.25 GHz
 Network ID 9
 Coverage map: <http://www.ses-americom.com/satellites/amc-1.html>

***Important note on LNB frequencies:**

All C-band LNB's have a local oscillator (L.O.) frequency of 5.150 GHz but Ku-band LNB's may come in many different frequencies typically 9.750 to 12.75 GHz. This means that if you're attempting to watch a Ku-band service you need to set the decoder's frequency using a bit of simple math. The formula to set the Ku-Low/Single L.O. frequency on the AFRTS decoder is the downlink frequency minus the L.O. frequency. As an example the downlink frequency for the INTELSAT 804 satellite serving the Japan and Korea Direct to Home service area is 11.6380 GHz. An LNB with a local oscillator frequency of 10.000 GHz would give a Ku Low/Single

L.O. frequency of 1638 MHz (1.638 GHz) by working the math problem $11.6380 - 10.000 = 1.638$. The Ku-band satellite serving the European service area is HotBird 4 at 13 degrees east and it has a downlink frequency of 10.775 GHz. Connecting an LNB with a local oscillator frequency of 9.750 would result in a receiver frequency of 1025 MHz ($10.775 - 9.750 = 1.025$ GHz which is 1025 MHz).

Source: http://www.afrts.osd.mil/tech_info/handbook/pdf/section19.pdf